LaForce, Inc.

Wisconsin Manufacturing Extension Partnership

LaForce Opens the Door to Lean

Client Profile:
LaForce, Inc. is a supplier of standard and custom metal doors and frames. The company employs 250 people at its facility in Green Bay, Wisconsin.

Situation:
A combination of competitive pressure and business growth led LaForce, Inc., to consider options to improve flow-through and keep lead times under control. The company had conducted some Lean work in their front office and contacted the Wisconsin Manufacturing Extension Partnership (WMEP), a NIST MEP network affiliate, for help in implementing Lean on the shop floor.

Solution:
WMEP conducted training in 5S/Visual Workplace in the bend cell production area to create a clean, well-organized workspace. By installing tool boards, they can now easily find and store tools. To address other issues, such as excessive Work in Process (WIP) and inefficient handling of material, they used Value Stream Mapping (VSM) to identify where waste was occurring. Sheet metal was being moved through four operations in the cell. After moving through the upstream operations, the metal was placed on trays and the trays were put on racks using a forklift. Downstream, the metal was moved using carts. "It was a sea of carts," said Doug Bengson, WMEP Project Manager, "and the racks were very full." They created first-in, first-out (FIFO) lanes to minimize the amount of product between work stations. This led to the elimination of the racking system and need for the forklift. They also set up stations for the carts downstream to get rid of the sea of carts and moved a machine to eliminate a handling step. The FIFO lanes also minimized the amount sitting in the WIP, which directly impacted lead time. Next, LaForce considered the time spent transferring programs to their CNC machines. With the help of their manufacturing designers and an investment of $1,000 to rewrite a driver, they are now able to mass-transfer programs, which has gained them an hour per shift of production time.

Results:
* Realized $198,000 in cost savings.
* Estimated $100,000 in gained production from CNC programming change.
* Improved productivity in bend cell by 10 percent.
* Shortened lead times from 4 to 5 weeks to 3 to 4 weeks.
* Increased output by 40 percent.
* Shortened cycle time through bend cell from 8 days to 3 to 4 days, with a goal of 2 days.

Testimonial:

"We want Lean to be part of our culture. It's a good fit for us."
David Allison, Plant Manager